

Improving K-12 Teaching and Schools

Postsecondary education has an obvious self-interest in the quality of preparation it provides to the nation's schoolteachers, because today's school pupils are tomorrow's college and university students. FIPSE therefore invites postsecondary institutions to propose new models for the preparation of K-12 teachers.

Teacher Education: FIPSE will support innovative programs to ensure that future school teachers have, first, a sound general education -- one that combines knowledge of important facts with the conceptual frameworks

**College Entrance Examination
Board
New York, New York**

**"Making Connections in Foreign
Language Instruction"**

The Making Connections Project is a dissemination initiative of an earlier, FIPSE-supported Articulation and Achievement Project, a three-year collaborative endeavor of the College Board, the American Council on the Teaching of Foreign Languages (ACTFL), and the New England Network of Academic Alliances. The project identified learning outcomes and classroom-based assessments for the critical transitions between middle school and high school, and between secondary and postsecondary education. The project also developed a coherent, sequenced, and articulated continuum for foreign language instruction and learning in grades 7-14 for the most commonly studied languages.

needed to understand and interpret those facts -- and, second, mastery of the academic disciplines they intend to teach. Earlier FIPSE projects directed at these goals have included curriculum reform at universities that traditionally graduate large numbers of teachers, the establishment of teacher-preparation programs at liberal arts colleges, and efforts to help professionals in other fields take up second careers in teaching. Applicants are encouraged to propose new variations on these strategies and more novel strategies to improve teacher preparation in all subject areas.

Improving the teaching of mathematics and reading is particularly important. In the recent "Third International Mathematics and Science Study" (TIMSS), U.S. fourth graders scored above the international average in mathematics, but U.S. eighth graders scored below the international average. By way of explanation, the study reported that American school teachers have more years of college education than those in all but a few of the 41 nations participating in the study, yet the math curriculum they teach is both less focused and less challenging than that taught in high-achieving nations such as Japan and Korea. Moreover, American teachers typically stress computational procedures rather than mathematical thinking and a deep understanding of mathematical concepts.

These results can be attributed in part to the collegiate preparation of elementary and middle school teachers of mathematics and the divided responsibility of departments of mathematics and schools of education for that preparation. Many of these future teachers take just a few credit hours of math through college mathematics departments. Moreover, these courses generally are not designed for prospective teachers, do not cover the mathematical content that elementary and middle school teachers teach, and do not model the instructional methods needed to present challenging mathematics to elementary and middle school students.

In response, FIPSE welcomes proposals for college mathematics courses, programs, or other innovations that will help future elementary and middle school math teachers master the content they will be asked to teach deeply enough to be able to engage their students in higher level mathematical learning. With university leadership, such a course or program would build on partnerships between math departments, schools of education, and the schools.

Strategies to improve the reading skills of America's youth are no less important. In addition to improvements in the preparation of teachers of reading, innovative proposals to involve parents, the community and collegiate tutors in innovative projects outside the school to reinforce these skills are encouraged.

Partnerships with Schools: Earlier FIPSE grantees have built numerous efforts to improve student performance in college on the strategy of forming

partnerships between K-12 and postsecondary institutions and educators. This idea continues to have potential. Partnerships which promise parity in obligations, opportunities, and rewards are especially welcomed, as are those that involve faculty from a variety of disciplines. The deliberate articulation of curriculum between educational stages is one very promising strategy, helping students to avoid those gaps, repetitions, and arbitrary shifts in nomenclature and perspective that so often hamper students' progress as they move from school to postsecondary institutions, and from two-year institutions to four-year ones.

FIPSE also has supported the articulation of student learning outcome assessments, especially in the area of foreign language, and related improvements in the college admissions and placement processes. Proposals offering new visions of partnership between K-12 and postsecondary education that hold promise for systemic reform will be welcomed.

FIPSE also invites proposals addressing the retention and professional development of talented in-service teachers. Opportunities to develop expertise with the newest instructional technologies and to work directly with academic specialists at the university level are especially needed. The identification of national achievement standards for students in the various subjects and the growth of the charter school movement also have numerous implications for the professional development of teachers, not to mention school administrators.